

FINAL
71-89-CR
OCT-
56882
p. 4

Grant Number: NAGW-2907
Principal Investigator: Dr. Abhijit Saha
Institution: STScI
Project Title: Search of Cepheids in Nearby Dwarf Galaxies
Reporting Period: 1/01/92 to 6/30/94

The objective of the project was to detect and measure Cepheids in nearby dwarf galaxies to get good distances to them, so that these galaxies in turn can be used as test particles to investigate the dynamics of the Local Group.

The data collection has been completed for ten galaxies.

Analysis of several of these galaxies has been completed and the results published:

- 1) "Variable Stars in the Pegasus Dwarf Galaxy (DDO 216)", J.G. Hoessel, M.J. Abbott, A. Saha, A.E. Mossman and G.E. Danielson, 1990, A.J., 100, 1151.
- 2) "Variable Stars in the Leo A Dwarf Galaxy (DDO 69)", E. Tolstoy, A. Saha, J. Krist, 1994, AJ, 108, 645.
- 3) "Variable Stars in Dwarf Galaxy GR8 (DDO 155)", E. Tolstoy, A. Saha, J.G. Hoessel, & G.E. Danielson, 1995 (AJ, in press).

Leo A and GR 8 are known from their velocities to be located near the so called "zero-velocity surface" of the Local Group. We know from these measurements that this surface is at a distance modulus of about 26.0, indicating a relatively loosely bound Local Group. The completion of the program will put more stringent constraints on the mass and extent of the Local Group.

Work has also been completed on IC 10, and a paper is in preparation.

Work on NGC 2366 is in an advanced state of analysis.

A PhD thesis by Eline Tolstoy, to be completed by the end of 1995, will include an analysis of the star formation history in Leo A, GR 8 and NGC 2366.

(NASA-CR-198850) SEARCH OF
CEPHEIDS IN NEARBY DWARF GALAXIES
Final Technical Report, 1 Jan. 1992
- 30 Jun. 1994 (Space Telescope
Science Inst.) 4 p

N95-71382

Unclass

29/89 0056882

FEDERAL CASH TRANSACTION REPORT

(See instructions on the back. If report is for more than one grant or assistance agreement, attach completed Standard Form 272-A.)

Approved by Office of Management and Budget, No. 80-R0182

1. Federal sponsoring agency and organizational element of which this report is submitted.

NASA - HEADQUARTERS
300 E STREET, SW Code BFH
WASHINGTON, DC 20546

2. RECIPIENT ORGANIZATION

Name
SPACE TELESCOPE SCIENCE INSTITUTE

Number and Street

3700 SAN MARTIN DRIVE

City, State & Zip Code:

BALTIMORE, MD 21218

4. Federal grant or other identification number.

NAGW-2907

5. Recipient's account number identification number

G002.69500

6. Letter of credit number

100040

7. Last payment voucher number

N/A

Give total number for this period

8. Payment Vouchers credited to your

Account

\$66,000.00

9. Treasury checks received

\$0.00

10. PERIOD COVERED BY THIS REPORT

FROM: 01/01/92 TO: 06/30/95

3. FEDERAL EMPLOYER IDENTIFICATION NO.

86-0138043

11. STATUS OF FEDERAL CASH

(See specific instructions on the back)

a. Cash on hand beginning of reporting period.	0.00
b. Letter of credit withdrawals - wire transfer	66,000.00
c. Treasury check payments	0.00
d. Total receipts (sum of lines b and c)	66,000.00
e. Total cash available (Sum of lines a and d)	66,000.00
f. Gross disbursements	66,000.00
g. Federal share of program income	0.00
h. Net disbursements (Line f minus line g)	66,000.00
i. Adjustments of prior periods	0.00
j. Cash on hand end of period	0.00

12. THE AMOUNT SHOW ON LINE 11J, ABOVE, REPRESENTS CASH REQUIREMENTS FOR THE ENSUING

Days

13. OTHER INFORMATION

a. Interest income	0.00
b. Advances to subgrantees or subcontractors	0.00

14. REMARKS (Attach additional sheets of plain paper, if more space is required)

FINAL 272 REPORT -

NAGW-2907

15. Certification

I certify to the best of my knowledge and belief that this report is true in all respects and that all disbursements have been made for the purpose and conditions of the grant or agreement.

AUTHORIZED
CERTIFYING
OFFICIAL

SIGNATURE

Susan K. Philbin

DATE REPORT SUBMITTED

4/21/95

TYPED OR PRINTED NAME AND TITLE

SUSAN K. PHILBIN ACCOUNTANT

TELEPHONE

(410) 338-4407

THIS SPACE FOR AGENCY USE

FEDERAL CASH TRANSACTION REPORT CONTINUATION

(This form is completed and attached to Standard Form 272 only when reporting more than one grant or assistance agreement.)

2. RECIPIENT ORGANIZATION (Give name only as shown in item 2, SF 272)

SPACE TELESCOPE SCIENCE INSTITUTE

Approved by Office of Management and Budget, No. 80-R0182

1. Federal sponsoring agency and organizational element of which this report is submitted.

**NASA - HEADQUARTERS
300 E STREET, SW Code BFH
WASHINGTON, DC 20546**

3. PERIOD COVERED BY THIS REPORT (As shown on SF 272)

FROM (month, day, year)

01/01/92

TO (month, day, year)

06/30/95

4. List information below for each grant or other agreement covered by this report. Use additional forms if more space is required.

FEDERAL GRANT OR OTHER IDENTIFICATION NUMBER (Show a subdivision by other identifying numbers if required by the Federal Sponsoring Agency)	RECIPIENT ACCOUNT NUMBER OR OTHER IDENTIFYING NUMBER	FEDERAL SHARE OF NET DISBURSEMENTS	
		NET DISBURSEMENTS (Gross disbursements less program income received) FOR REPORTING PERIOD	CUMULATIVE NET DISBURSEMENTS
(a)	(b)	(c)	(d)
NAGW-2907	G002.69500	0.00	66,000.00
5. TOTALS (Should correspond with amounts shown on SF 272 as follows: column (c) the same as line 11h; column (d) the sum of lines 11h and 11i of this SF 272 and cumulative disbursements shown on last report. Attach explanation of any differences.)		\$0.00	\$66,000.00

Space Telescope Science Institute
Property 1018 Receive Report by Contract-Grant number
as of 11/04/94

Contract/Grant	Tag No.	Description	Model Number	Location	Date	Comments	Unit cost	Trans Code	Condition Code	Current Custodian
NAGW-2907	GR000234	DISK DRIVE, WREN	ST41650N	S406	06/17/92	Original Acquisition	2,882.00	R	A4	SPENCER, DARLENE
TOTAL							<u>2,882.00</u>			
							<u>\$2,882.00</u>			

PATENT/INVENTION REPORT

Principal Investigator: Dr. Abhijit Saha

Grant : NAGW-2907

Patents/Inventions Developed: NONE